

ICC Docket No. 02-0864
Illinois Commerce Commission
AT&T Communications of Illinois 24th Data Request
Data Request No. LLS-1

Cx6

3/15/04

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Request: Reference Dr. Aron's Direct Testimony at pages 8-10 and her Rebuttal Testimony at pages 25-27, which describe Dr. Aron's "top-down" and "bottom-up" approach at defining and removing retailing costs from ARMIS booked cost. According to Table 1 in her Direct Testimony, Dr. Aron relies upon 2001 ARMIS data when making the "top-down" calculation. According to Table 1 in her Rebuttal Testimony, Dr. Aron relies upon 2002 ARMIS data when making the "bottom-up" calculation.

Please provide all workpapers, documents and analysis used by Dr. Aron to develop Table 1 in her Rebuttal Testimony.

Did Dr. Aron calculate the 2001 "book cost, including capital cost" using her "bottoms up" method of removing retailing expenses? If so, please provide the results of that calculation and all supporting workpapers. If not, why not?

Did Dr. Aron calculate the 2002 book cost, including capital cost, using her "tops down" method of removing retailing expenses? If so, please provide the results of that calculation and all supporting workpapers. If not, why not?

Response:

The workpapers listed below, which are provided in the attached file:

"SBC Resp to AT&T LLS-1 Attachment.zip"

were used to develop Table 1:

- Explanation of ARMIS calcs (TRIIL) 2002 V2.xls
- ARMIS 2002 Computations Competitive line Update.xls
- UNE-P price update.xls
- Matrix0703all.pdf
- intro0703_000.pdf

The following file, provided in response to AT&T's 15th data request JG-11, was also used to develop Table 1:

- Status of UNE-P 11 08 02.pdf

Dr. Aron did not calculate the 2001 book cost using the bottom up approach, because at the time she was working with the 2001 data, she had not developed the bottom-up methodology.

Dr. Aron calculated the 2002 book cost using the top down approach. The results of that calculation are presented in Table 1A below.

TABLE 1A ANALYSIS OF REVENUES AND COSTS PER LOOP OR LINE PER MONTH FOR SBC ILLINOIS (2002 COST DATA; TOP-DOWN APPROACH)				
		Source	UNE-L	UNE-P
	SBC Illinois			
1	Revenue (i.e., UNE price)	<i>CCM November 2002</i>	\$ 9.81 ⁽¹⁾	\$ 12.50 ⁽¹⁾
2	Book Cost (including capital cost)	ARMIS/LECG	\$ 15.75 ⁽²⁾	\$ 30.08 ⁽²⁾
3	Net	L1-L2	\$ (5.94)	\$ (17.58)
4	% Revenue Increase Required to Break Even	L2/L1-1	61%	141%
Sources & Notes:				
⁽¹⁾ Source is <i>CCM November 2002</i> , with an update by LECG using NRRI 2003 information. Includes non-recurring charges amortized over 36 months. See, <i>CCM May 2002</i> , p. 11.				
⁽²⁾ Source is FCC ARMIS files 2002 (http://www.fcc.gov/wcb/armis/). Data are adjusted by LECG analysts to obtain total wholesale (UNE) expenses and investment. Key assumptions: Loop costs are reduced 17.8%; assumed depreciation rates are FCC approved depreciation rates; and assumed cost of capital is 12.19%. Costs include an adjustment of 3.72% for uncollectibles.				

The workpapers listed below, which are provided in the attached file:

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were used to develop Table 1A:

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- UNE-P price update.xls
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- intro0703_000.pdf

Witness Responsible: Dr. Debra Aron

Derivation of Total ARMIS Costs Per Loop and Per Line for Illinois - BASE CASE						
Line	Description	ARMIS Line	UNE-L	Switching	Transport	UNE-P
1	Total Expenses & Depreciation	1190	\$ 282,821	\$ 63,267	\$ 92,169	
2	Other Non-Operating	1390	\$ (168)	\$ (57)	\$ (72)	
3	Other Taxes	1420	\$ 3,794	\$ 1,122	\$ 1,435	
4	Marketing	1140	\$ 13,478	\$ 3,944	\$ 5,278	
5	Customer Service	1150	\$ 7,143	\$ 1,396	\$ 1,823	
6	Interstate Expenses	L1+L2+L3	\$ 286,447	\$ 64,332	\$ 93,552	
7	Return at 12.19% ⁽¹⁾	L20	\$ 57,394	\$ 21,748	\$ 26,326	
8	Income Taxes	L7 x L32	\$ 34,736	\$ 13,162	\$ 15,933	
9	Total Interstate Costs	L6+L7+L8-L4-L5	\$ 357,956	\$ 93,902	\$ 128,710	
10	Adjustment Factor ⁽²⁾	(see note 2)	4	6.44403	3.22202	
11	Wholesale (UNE) Costs	L9 x L10	\$ 1,431,824	\$ 605,105	\$ 414,705	
12	+ # of Lines ⁽³⁾	L39	6,831	6,498	6,498	
13	UNE Cost/Line	L11 + L12	\$ 209,6208	\$ 93,1182	\$ 63,8179	
14	+ 12 months	Input	12	12	12	
15	UNE Cost/Line/Month	L13 + L14	\$ 17.47	\$ 7.76	\$ 5.32	\$ 30.55
16	Uncollectible Factor	L48	3.72%	3.72%	3.72%	3.72%
17	Total Costs w/ Uncollectible	L15 x L16	\$ 18.12	\$ 8.05	\$ 5.52	\$ 31.68
Notes: Due to rounding and linking within the original spreadsheet, the (simplified) numbers here are not precisely correct as one progresses through the steps. Rather, each line is taken directly from the original spreadsheet. ⁽¹⁾ 12.19% overall return per Avera testimony. ⁽²⁾ 25% of Common Line is allocated to interstate. For switching and transport, the ratio is Total Dem Mou / Interstate Dem Mou. See also derivation of DEM allocators in lines below. ⁽³⁾ ARMIS data is reported in thousands. This adjustment recovers whole dollars.						
Return on Investment Computation						
18	Average Net Investment	1910	\$ 470,828	\$ 178,405	\$ 215,962	
19	Rate of Return	Input	12.19%	12.19%	12.19%	
20	Return	L18 x L19	\$ 57,394	\$ 21,748	\$ 26,326	
Derivation of Allocators						
21	Total DEM MOU	L216		152,730	152,730	
22	Interstate DEM MOU	L216		23,701	23,701	
23	Total DEM/Interstate	L21 + L22		6,4440	6,4440	
24	Adjustment	1/2 for transport		1,000	0,500	
25	Allocation Factor	L23 x L24		6.4440	3.2220	
Derivation of Tax Rate						
27	State Income Tax Rate	Feder. Of Tax Administrators	7.30%			
28	Federal Income Tax Rate	Input	35.00%			
29	Combined Rate	L27+L28 x (1-L27)	39.75%			
30	Interest Rate	Input	7.18%			
31	Debt Ratio	Input	14%			
32	Tax % of return	(L29 + (1-L29)) x (1-L31 x L30+L19)	60.52%			
Derivation of Average Lines						
33	December 2001 ARMIS Lines	2150	6,295.125	6,295.125	6,295.125	
34	December 2002 ARMIS Lines	2150	5,649.070	5,649.070	5,649.070	
35	Average of ARMIS Lines	(L33 + L34) + 2	5,972.098	5,972.098	5,972.098	
36	June, 2002 Resale Lines	FCC's Spreadsheet	204,521	204,521	204,521	
37	June, 2002 UNE-L Lines	FCC's Spreadsheet	332,293	-	-	
38	June, 2002 UNE-P Lines	FCC's Spreadsheet	423,890	423,890	423,890	
39	Average Lines	L35 + (L36 + 2) - L37 + L38	6,831	6,498	6,498	
40	Uncollectible Revenues	1060	\$ 10,243	\$ 3,034	\$ 3,929	
41	Total Revenues	1090	\$ 302,865	\$ 75,442	\$ 63,032	
42	Adjustment Factor	L10	4.00000	6.44403	3.22202	
43	Total Uncollectibles	L40 x L42	\$ 40,972	\$ 19,551	\$ 12,659	
44	Total Revenues	L41 x L42	\$ 1,211,460	\$ 486,151	\$ 203,090	
45	Lines	L39	\$ 6,831	\$ 6,498	\$ 6,498	
46	Uncollectible per Line	L43 + L45	\$ 6.00	\$ 3.01	\$ 1.95	\$ 10.96
47	Revenue per Line	L44 - L45	\$ 177.36	\$ 74.81	\$ 31.25	\$ 283.42
48	Percentage Uncollectable	L46 - L47				3.72%

Derivation of Total ARMIS BASE CASE w/o Wholesale Adjustment						
Line	Description	ARMIS Line	UNE-L	Switching	Transport	UNE-P
1	Total Expenses & Depreciation	1190	\$ 282,821	\$ 63,267	\$ 92,169	
2	Other Non-Operating	1390	\$ (168)	\$ (57)	\$ (72)	
3	Other Taxes	1420	\$ 3,794	\$ 1,122	\$ 1,455	
4	Interstate Expenses	L1+L2+L3	\$ 286,447	\$ 64,332	\$ 93,552	
5	Return at 12.19% ⁽¹⁾	L20	\$ 57,394	\$ 21,748	\$ 26,326	
6	Income Taxes	L5 x L32	\$ 34,736	\$ 13,162	\$ 15,933	
7	Total Interstate Costs	L4+L5+L6	\$ 378,577	\$ 99,242	\$ 135,811	
8	Adjustment Factor ⁽²⁾	(see note 2)	4	6.44403	3.22202	
9	Total Costs	L7 x L8	\$ 1,514,308	\$ 639,516	\$ 437,584	
10	x Retail Adjustment ⁽³⁾	(see note 3)	100.00%	n/a	n/a	
11	Wholesale (UNE) Costs	L9 x L10	\$ 1,514,308	\$ 639,516	\$ 437,584	
12	÷ # of Lines ⁽⁴⁾	L38	6,831	6,498	6,498	
13	UNE Cost/Line	L11 ÷ L12	\$ 221.6966	\$ 98.4137	\$ 67.3388	
14	÷ 12 months	Input	12	12	12	
15	UNE Cost/Line/Month	L13 ÷ L14	\$ 18.47	\$ 8.20	\$ 5.61	\$ 32.29
16	Uncollectible Factor	L47	3.72%	3.72%	3.72%	3.72%
17	Total Costs w/ Uncollectible	L15 x L16	\$ 19.16	\$ 8.51	\$ 5.82	\$ 33.49
Notes: Due to rounding and linking within the original spreadsheet, the (simplified) numbers here are not precisely correct as one progresses through the steps. Rather, each line is taken directly from the original spreadsheet. ⁽¹⁾ 12.19% overall return per Avera testimony. ⁽²⁾ 25% of Common Line is allocated to interstate. For switching and transport, the ratio is Total Dem Mou / Interstate Dem Mou. See also derivation of DEM allocators in lines below. ⁽³⁾ Reduction in costs to net out retail. ⁽⁴⁾ ARMIS data is reported in thousands. This adjustment recovers whole dollars.						
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20	Return	L18 x L19	\$ 57,394	\$ 21,748	\$ 26,326	
Derivation of Allocators						
21	Total DEM MOU	1216		152,730	152,730	
22	Interstate DEM MOU	1216		23,701	23,701	
23	Total DEM/Interstate	L21 ÷ L22		6.4440	6.4440	
24	Adjustment	1/2 for transport		1.000	0.500	
25	Allocation Factor	L23 x L24		6.4440	3.2220	

Derivation of Total ARMIS Costs Per Loop and Per Line for Illinois - BASE CASE						
Line	Description	ARMIS Line	UNE-L	Switching	Transport	UNE-P
1	Total Expenses & Depreciation	1190	\$ 282,821	\$ 63,267	\$ 92,169	
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3	Other Taxes	1420	\$ 3,794	\$ 1,122	\$ 1,455	
4	Marketing	1140	\$ 13,478	\$ 3,944	\$ 5,278	
5	Customer Service	1150	\$ 7,143	\$ 1,396	\$ 1,823	
6	Interstate Expenses	L1+L2+L3	\$ 286,447	\$ 64,332	\$ 93,552	
7	Return at 11.25% ⁽¹⁾	L20	\$ 52,968	\$ 20,071	\$ 24,296	
8	Income Taxes	L7 x L32	\$ 31,817	\$ 12,056	\$ 14,594	
9	Total Interstate Costs	L6+L7+L8-L4-L5	\$ 350,611	\$ 91,118	\$ 125,341	
10	Adjustment Factor ⁽²⁾	(see note 2)	4	6.44403	3.22202	
11	Wholesale (UNE) Costs	L9 x L10	\$ 1,402,443	\$ 587,170	\$ 403,849	
12	÷ # of Lines ⁽⁴⁾	L39	6,831	6,498	6,498	
13	UNE Cost/Line	L11 ÷ L12	\$ 205.3195	\$ 90.3583	\$ 62.1474	
14	÷ 12 months	Input	12	12	12	
15	UNE Cost/Line/Month	L13 ÷ L14	\$ 17.11	\$ 7.53	\$ 5.18	\$ 29.82
16	Uncollectible Factor	L48	3.72%	3.72%	3.72%	3.72%
17	Total Costs w/ Uncollectible	L15 x L16	\$ 17.75	\$ 7.81	\$ 5.37	\$ 30.93
Notes: Due to rounding and linking within the original spreadsheet, the (simplified) numbers here are not precisely correct as one progresses through the steps. Rather, each line is taken directly from the original spreadsheet. ⁽¹⁾ 11.25% per FCC. ⁽²⁾ 25% of Common Line is allocated to interstate. For switching and transport, the ratio is Total Dem Mou / Interstate Dem Mou. See also derivation of DEM allocators in lines below. ⁽³⁾ ARMIS data is reported in thousands. This adjustment recovers whole dollars.						
Return on Investment Computation						
18	Average Net Investment	1910	\$ 470,828	\$ 178,405	\$ 215,962	
19	Rate of Return	Input	11.25%	11.25%	11.25%	
20	Return	L18 x L19	\$ 52,968	\$ 20,071	\$ 24,296	
Derivation of Allocators						
21	Total DEM MOU	1216		152,730	152,730	
22	Interstate DEM MOU	1216		23,701	23,701	
23	Total DEM/Interstate	L21 ÷ L22		6.4440	6.4440	
24	Adjustment	1/2 for transport		1.000	0.500	
25	Allocation Factor	L23 x L24		6.4440	3.2220	

Derivation of Marketing and Customer Care ARMIS Costs Per Loop and Per Line for Illinois with no Resale Discount

		ARMIS Line	UNE-L	Switching	Transport	UNE-P
1	Marketing	1140	\$ 13,478	\$ 3,944	\$ 5,278	
2	Customer Care	1150	\$ 7,143	\$ 1,396	\$ 1,823	
3	Total		\$ 20,621	\$ 5,340	\$ 7,101	
4	Total Interstate Costs	L1+L2	\$ 20,621	\$ 5,340	\$ 7,101	
5	Adjustment Factor ⁽²⁾	(see note 2)	4	6.44403	3.22202	
6	Total Costs	L4 x L5	\$ 82,484	\$ 34,411	\$ 22,880	
7	x Retail Adjustment	None	100.00%	n/a	n/a	
8	Wholesale (UNE) Costs	L6 x L7	\$ 82,484	\$ 34,411	\$ 22,880	
9	÷ # of Lines ⁽³⁾	L24	6,831	6,498	6,498	
10	Marketing & CC Cost/Line	L8 ÷ L9	\$ 12,0758	\$ 5,2954	\$ 3,5209	
11	÷ 12 months	Input	12	12	12	
12	Marketing & CC Cost/Line/Month	L10 ÷ L11	\$ 1.01	\$ 0.44	\$ 0.29	\$ 1.74

Notes:

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⁽³⁾ 12.19% overall return

Derivation of Allocators

13	Total DEM MOU	1216		152,730	152,730	
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15	Total DEM/Interstate	L13 ÷ L14		6.4440	6.4440	
16	Adjustment	1/2 for transport		1,000	0.500	
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Derivation of Average Lines

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6	Income Taxes	L5 x L32	\$ 34,736	\$ 13,162	\$ 15,933				
7	Total Interstate Costs	L4+L5+L6	\$ 378,577	\$ 99,242	\$ 135,811				
8	Adjustment Factor ⁽²⁾	(see note 2)	4	6,44403	3,22202				
9	Total Costs	L7 x L8	\$ 1,514,308	\$ 639,516	\$ 437,584				
10	x Retail Adjustment ⁽³⁾	(see note 3)	82.20%	n/a	n/a				
11	Wholesale (UNE) Costs	L9 x L10	\$ 1,244,761	\$ 639,516	\$ 437,584				
12	= # of Lines ⁽⁴⁾	L39	6,831	6,498	6,498				
13	UNE Cost/Line	L11 ÷ L12	\$ 182,2346	\$ 98,4137	\$ 67,3388				
14	÷ 12 months	Input	12	12	12				
15	UNE Cost/Line/Month	L13 ÷ L14	\$ 15.19	\$ 8.20	\$ 5.61				29.00
16	Uncollectible Factor	L48	3.72%	3.72%	3.72%				3.72%
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9	Total Costs	L7 x L8	\$ 1,484,927	\$ 621,581	\$ 426,729	
10	x Retail Adjustment ⁽³⁾	(see note 3)	82.20%	n/a	n/a	
11	Wholesale (UNE) Costs	L9 x L10	\$ 1,220,610	\$ 621,581	\$ 426,729	
12	÷ # of Lines ⁽⁴⁾	L39	6,831	6,498	6,498	
13	UNE Cost/Line	L11 ÷ L12	\$ 178.6989	\$ 95.6537	\$ 65.6683	
14	÷ 12 months	Input	12	12	12	
15	UNE Cost/Line/Month	L13 ÷ L14	\$ 14.89	\$ 7.97	\$ 5.47	\$ 28.34
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